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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/721,583

Applicant(s)

MITCHELL ET AL.

Examiner

VIREN THAKUR

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12, 15-19, 22, 24, 33-41 and 66-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 15-19, 22, 24, 33-41 and 66-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. As a result of the amendment or cancellation of the claim, the rejection of claims 11, 18, 20, 21, 23 and 35 under 35 U.S.C. 112, second paragraph, has been withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 3 remains rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, for the reasons given in the previous Office Action, mailed September 21, 2007.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1-10,12,15-19,22,24, 33-41, 66-72 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claims 1, 33 and 66, the claims recite the limitation "a product." The claims then further recite "placing a first row of the de-cored product." The claims are unclear as to whether there is only one product or several products arranged within a row, in the tote. Claim 69 recites "placing the de-cored product in a tote, wherein the step of placing comprises placing a first row of the de-cored product in the tote with de-cored ends of the product in the first row facing a side of the tote." The claim further recites that the "washing fluid flows through the de-cored end of each product to an opposite end of each product." Based on the guidance in the specification, it is unclear as to how the "first side of the tote" can face "a direction of conveyance", if the de-cored ends also face this first side and if the washing fluid flows through the de-cored ends. The washing fluid approaches from the left and right sides of the totes, as shown in figure 5 of the specification, however the direction of conveyance is horizontal and not into the face of the spray jets.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1, 2, 4, 5, 7-10, 12, 15, 16-17, 18, 19, 22, 33-41 and 66-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell et al. (US 6112429) in view of Hougham (US 5316778) and in further view of Brown (US 20030126850), Brown et al. (US 6298865) and Garcia, Jr. et al. (US 6626192). Cress et al. (US 6223502) and Levey et al. (US 5566695) has been relied on as evidence.

Regarding claim 1, Mitchell et al. teach cutting a product from a stalk (column 1, lines 19-25), removing the core (column 3, lines 31-32), placing the product into a tote (column 3, lines 34-35). A tote is interpreted as a container holding the food products. IN this case, Mitchell et al. teach boxes or bags as the containers for packaging the food products. Regarding the new limitations of claim 1, Mitchell et al. teach placing a first row of the de-cored product in the tote with de-cored ends of the product in the first row facing a first side of the tote (see figure 2B). Even through the de-cored ends are facing each other, one row is still facing a side of the container.

The new limitations to claim 1 differ from the prior art in specifically reciting wherein the product is de-cored and placed in a tote.

Regarding de-coring, Brown '850 teaches that coring the lettuce in the field eliminates most of the waste leaves and cores, thereby reducing the bulkiness of the product during shipment. Brown '850 further teaches that coring of the lettuce means only 100 percent usable lettuce leaves are shipped when the lettuce head is cored in the field (paragraph 0008). In addition, Brown '850 teaches that first cutting and coring the lettuce allows the lettuce to bleed excess sap prior to washing. As a result, the sap or latex exudates is removed from the product, thus resulting in a more appealing lettuce product (Paragraph 0009). Brown '850 also teaches washing the de-cored head, as discussed above. Brown et al. '865 also further teaches spraying a washing fluid through the holes (column 2, lines 35-41) thus removing any additional accumulated dirt or remaining latex exudates within the core. Based on these teachings, it would have been obvious to one having ordinary skill in the art to remove the core of the lettuce of Mitchell et al., prior to washing for the purpose of removing the undesirable latex exudates and further for only providing 100 percent usable lettuce leaves. Such a modification would have provided a more appealing product while also reducing the bulkiness of the product and also removing any accumulated dirt or exudates from within the core.

Claim 1 further differs from the prior art in specifically reciting wherein the de-cored product which is in the tote is also cleaned in the tote.

Regarding cleaning while in the tote, Hougham teaches that it has been conventional in the art to place de-cored leafy vegetables into containers. After placing into the containers, the leafy vegetables undergo a washing and drying and subsequent

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packaging step. Nevertheless, Hougham teaches extending the storage life of the vegetables by minimizing the factors that result in spoilage, such as microbiological decay, and handling damage (column 1, lines 25-27). To prevent handling damage, Hougham teaches placing the vegetables into a container which is then conveyed through a washing and drying system (column 2, lines 16-22 and lines 30-39). Based on these teachings, Hougham provides the broad teaching of keeping the food product within the container while washing, for the purpose of minimizing the handling by the operator. Such a modification would further have extended the storage by preventing damage caused during handling of the produce from out of the container and into a washing cycle and then back into the containers for drying. Even further, Brown '850 has also been relied on to teach the conventionality of washing de-cored produce wherein the de-cored produce is placed into a container, washed within that container and transported in that same container (paragraph 0045 and 0046). Based on these teachings, it would have been obvious to one having ordinary skill in the art to wash the produce within the container for the purpose of minimizing the handling of the produce so as to prevent additional handling damage between processing steps.

The new limitations to claim 1 further differ in specifically reciting wherein the de-cored product is placed in a first row which faces a first side of the tote and the washing fluid flows through the de-cored end of each product to an opposite end of each product. It is noted, however, that Mitchell et al. teach placing the produce in a first and second row, which face a first and second side of the container, See figure 2B. It is further noted that Brown '850 teaches that the nozzles that are used to wash the de-

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cored produce are aligned in a row (Paragraph 0043). The reference to Cress et al. has also been cited as additional evidence of the conventionality of the concept of containers that hold items to be washed which are also dried in the same container without removal of the items. Levey et al., show in figures 1 and 2, the conventionality of aligning items to be washed into rows and wherein the "cores" would face the washing jets. Garcia, Jr. similarly, show washed produced being aligned into rows. To therefore align the de-cored produce into rows so as to correspond with the aligned rows of washing nozzles would have been obvious to one having ordinary skill in the art, for the purpose of providing adequate washing of the cored produce. Regarding the limitation of the cleaning fluid flowing through the de-cored end of each product to an opposite end of each product, it is noted that Brown '850 and Brown et al. '865 teach wherein the washing fluid flows through the de-cored end of each product. Since the references are performing the same de-coring process as applicant, the washing fluid would also have flowed through this de-cored end to an opposite end of the products.

Regarding claim 2, Mitchell teaches cutting off the core (column 3, lines 31-32). Regarding claim 4, Mitchell et al. teach removing the core and placing into a tote at a processing plant (column 3, lines 31-35). Modified Mitchell et al. teaches cleaning rows of de-cored produce within a container. Regarding claim 5, the whole head nature of the produce is retained. Regarding claim 7, by cutting off the core, Mitchell et al. inherently disclose using another device for removing the core. This limitation reads on any device used to remove the core.

Claims 8 and 9 differ from the prior art in specifically reciting the step of pre-washing the cut product prior to placing in the tote and further comprising the step of spray washing at least one end of the product before placement in the tote.

Hougham teaches the step of pre-washing de-cored lettuce leaves by first spraying with a solution of fresh water and chloride to remove natural latex milky substance generated from the leave (Column 2, lines 17-23). Hougham further teaches that the first wash adds moisture to the leaves and increases the shelf life of the vegetable and also kills bacteria while also removing dirt and debris which accumulated on the product due to field handling (column 2, lines 24-29). After the pre-washing, Hougham subsequently places the tote within a washing step at the processing facility to remove insects, dirt and other debris which remains attached to the product following field processing (column 2, lines 40-42). Both Mitchell et al. and Hougham teach harvesting lettuce at a field and placing it into a container. Nevertheless, based on the teachings of Hougham, it would have been obvious to one having ordinary skill in the art to pre-wash the lettuce of modified Mitchell et al., as taught by Hougham for the purpose of removing the dirt and debris which accumulated during field handling. Also, such a modification would have extended the shelf life by adding moisture and also providing a bactericidal effect. Although Hougham discloses pre-washing after placing the lettuce within a tote, to pre-wash prior to placing into a tote would have been within the knowledge of the ordinarily skilled artisan for the purpose of forgoing the need to drain the container of the dirt and residue from the washing. Such a modification would have also loosened dirt and other contaminants, thus resulting in efficient cleaning

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during the washing step. This is a similar concept to pre-scrubbing dirty dishes before placing in the dishwasher so as to ensure complete cleaning of the dish. Even further, since Hougham teaches the concept of pre-washing, whether the pre-wash was performed prior to or after placement within the tote would not have provided a patentable feature over the prior art, since Hougham teaches the concept of pre-washing for the removal of the accumulation of dirt, a bacteriocidal effect and extending the shelf life of the product by adding moisture prior to processing the lettuce at a processing plant.

Regarding claim 10, Mitchell et al., modified by Brown '850, Brown et al. '865 and Hougham, teaches spray washing the product after placement in the tote and prior to transfer to a transport vehicle.

Regarding claim 12, Mitchell et al. modified by the prior art teach washing, drying and packaging and further teach maintaining the whole head nature of the product.

Regarding instant claim 15, based on the size of the totes (Figure 2A, 2B) it would have been obvious to the ordinarily skilled artisan to place multiple rows of the de-cored product on top of each other for the purpose of maximizing the efficiency of the washing and drying process. In any case, Mitchell et al. teach that it was known to wash multiple rows, as shown in figure 9B. Mitchell et al. also teach wherein the products are stacked in the totes to dry (Column 2, lines 10-12). The prior art to Brown and Hougham already provides motivation for washing while in the tote. To therefore stack multiple rows on top of each other in the tote, for washing, would have been obvious for the purpose of maximizing the efficiency of the washing and drying process.

Regarding instant claim 16, Mitchell et al. teaches an immersion tank (See Abstract and Column 1, Lines 44-48; column 3, lines 21-54) including a cleaning fluid, as recited in instant claim 17.

Regarding instant claim 18, Mitchell et al. teach flow of cleaning fluid directed toward the ends of the product. The combined teachings of Mitchell et al., Hougham, Brown ('850) and Brown et al. ('865), as discussed above teach washing de-cored produce in a tote and the flow of washing fluid directed toward the de-cored ends of the product. Regarding instant claim 19, Mitchell et al. teach a conveyance device to carry the tote of modified Mitchell et al. (See Figure 9B) through the cleaning tank.

Regarding instant claim 22, Mitchell et al. teach placing a tote comprising washed whole head produce into a spin dryer (Column 3, Lines 37-46). The spin drying of Mitchell et al. maintains the whole head nature during drying and after drying said whole head produce is packaged (Column 3, Lines 37-46).

Claim 33 is rejected for the reasons discussed above with respect to claim 1 and claims 8-12 and 16-17. Regarding claim 33 and the recitation of immersing the totes in a washing and drying without reloading the tote after washing, Hougham teaches placing leafy vegetables into containers and pre-washing, washing and drying without removing the vegetables from the container, for the purpose of preventing handling damage, as discussed above. It is noted that Mitchell et al. already teaches the particular type of dryer, such as a spin dryer. Based on these teachings, it would have been obvious to one having ordinary skill in the art to keep the produce of Mitchell et al.

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within the tote that was used to harvest the product and subsequently wash the produce within the tote for the purpose of minimizing the handling by an operator.

Regarding instant claim 34, Mitchell et al. teach packaging the produce (Column 3, Lines 34-35) after drying. Regarding instant claim 35, Mitchell et al. teach using chilled water (Column 5, Lines 1-12), and the Brown references similarly teach using an aqueous wash. Hougham teaches using chlorinated water (see abstract). Regarding instant claim 36, Mitchell et al. teaches the concept of maintaining registration of the produce with a first and second conveyor (Figure 9B). Mitchell et al. teach using the two conveyor belts to prevent bobbing of the produce while submerged. It would have been obvious to the ordinary skilled artisan that the fact that a tote has been used in modified Mitchell et al. would not have prevented bobbing of the tote. As used in modified Mitchell et al. the tote would also have been expected to "bob" depending on the amount of produce within the tote and the number of openings within the tote and the pressure of the water as well as the level of immersion. Therefore, to use a second conveyor, as taught by Mitchell et al., on the top of the tote would have been obvious for the purpose of securing the tote while the tote is submerged.

Regarding instant claim 37, the combined teachings of the prior art are silent in explicitly reciting a latching mechanism for securing the tote with the conveyor belt during the step of transporting. Nevertheless, to use stops, for instance to maintain the totes on the conveyor belt would have been obvious to one having ordinary skill in the art to prevent the totes from falling off of the conveyor belt. This would further have been obvious since such an incident would have resulted in stoppage of the entire

automated process of washing the totes. Thus, based on this knowledge it would have been obvious to provide a securement mechanism that keeps the totes of modified Mitchell et al. in communication with the conveyor belts. Such a modification would have prevented the totes from slipping off of the conveyor belts due to the forces imparted onto the tote as a result of washing.

Claims 38 and 39 are rejected for the reasons given with respect to claims 8-9. Claim 40 is rejected for the reasons given with respect to claims 1 and 16. That is, modified Mitchell et al. teaches washing de-cored produce while in the tote and Mitchell et al., further teaches immersing the produce for cleaning (column 5, lines 21-54). Again, claim 40 differs in maintaining the produce within the tote throughout the entire washing process. Mitchell et al. already teaches immersing the produce. The prior art to Brown and Hougham teaches the concept of maintaining the de-cored produce within the tote during washing, drying and transporting, and to therefore use the tote throughout the washing process would have been obvious for the reasons given above with respect to claim 1. Regarding claim 41, Brown '850 teaches a transport mechanism which carries the totes comprising the produce into a flow of washing fluid directed at the de-cored ends of the produce, as discussed above.

Claims 66 and 71 differs from the prior art in specifically reciting wherein two rows of the de-cored product are placed within the tote. As discussed above, the prior art to Mitchell et al. already teaches two rows of produce being washed (figure 9B) but does not teach maintaining these rows in totes. The prior art to Brown and Hougham teaches maintaining the produce within totes while washing. Maintaining the produce in

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rows would also have been obvious for the reasons given with respect to claim 1. To therefore have two rows, side by side, would not have provided a patentable feature over the prior art. Regarding claims 67 and 72, the prior art already teaches washing fluid directed to two sides of the tote. For instance Brown '850 teaches spraying from the top and bottom, and Mitchell et al., teach spraying from the left and right sides. Claim 68 is rejected for the reasons given with respect to claim 19. Regarding claims 69 and 70, modified Mitchell et al. teach washing and drying the de-cored produce while being maintained within a tote and also immersing the tote, for the reasons given above with respect to claims 1 and 16. The claim 69 differs in reciting wherein the first side of the tote faces a direction of conveyance, while the de-cored product also faces the first side. In light of the rejection under 35 U.S.C. 112, second paragraph, it is noted that Brown '850 and '865 teach fluid flow from above and below the tote, and Mitchell et al. teach fluid flow from the left and right sides of the tote. However, Brown' 850 also teaches that the nozzles may be arranged in rows or any arrangement that adequately washes the trimmed produce. To therefore re-orient the produce so that the de-cored ends face a first side which is in the direction of conveyance would have been an obvious matter of design.

9. Claims 1-3, 5, 7, 15-19, 22, 33-41 and 66-72, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 20030126850 A1) in view of Brown et al. (US 6298865), Mitchell et al. (US 6112429) and Garcia, Jr. et al. (US

6626192). Cress et al. (US 6223502) and Levey et al. (US 5566695) has been relied on as evidence.

Regarding claim 1, Brown teaches cutting and coring a product (paragraph 0005, 0009) and placing the de-cored product into a tote (paragraph 0011 and paragraph 0050 and figure 6 and 7, item 23). It is noted that the de-cored ends would inherently have faced the flow of the washing fluid, since the de-cored products are placed in the container so that the sap and excess bleeds out of the cored products (i.e. vertical) and since the washing heads are arranged in rows which are provided above and below the container so as to spray upwardly and downwardly (paragraph 0042 and paragraph 0043). The parent of this Brown reference, which is incorporated by reference, provides further evidence of an exudate bleeding from the de-cored portion, and the produce being positioned to allow this exudate to bleed from the de-cored portion and also wherein the de-cored portions are washed. In any case, it is even further noted that as recited, Brown '850 would still have the de-cored product facing a side of the container.

The claim differs from the prior art in the newly recited limitation of the product being placed in a first row in the tote with de-cored ends of the product in the first row facing a first side of the tote. The de-cored ends would inherently have faced a side of the container, such as the bottom of the container for the purpose of positioning the de-cored product to exude the sap, prior to washing (paragraph 0009). Brown '850 does not explicitly teach placing the de-cored products into a row. Nevertheless, Brown et al. '865 teaches wherein the de-cored produce is aligned in a row so that the cored areas are washed using the spray nozzles (See figure 5, for instance). Mitchell et al. teaches

that it has been conventional in the art to place de-cored produce into a container in rows, as shown in figure 2B. Mitchell et al. also teach washing the lettuce while in rows, as shown in figure 9B. It is further noted that Brown '850 teaches that the nozzles that are used to wash the de-cored produce are aligned in a row (Paragraph 0043). The reference to Cress et al. has also been cited as additional evidence of the conventionality of the concept of containers that hold items to be washed which are also dried in the same container without removal of the items. Levey et al., show in figures 1 and 2, the conventionality of aligning items to be washed into rows. Garcia, Jr. similarly, show washed produced being aligned into rows. To therefore align the de-cored produce into rows so as to correspond with the aligned rows of washing nozzles would have been obvious to one having ordinary skill in the art, for the purpose of providing adequate washing of the cored produce. Regarding the limitation of the cleaning fluid flowing through the de-cored end of each product to an opposite end of each product, it is noted that Brown '850 and Brown et al. '865 teach wherein the washing fluid flows through the de-cored end of each product. Since the references are performing the same de-coring process as applicant, the washing fluid would also have flowed through this de-cored end to an opposite end of the products.

Regarding claims 2, Brown '850 teaches removing the core, and thus cutting off the core (Paragraph 0041). Regarding claim 3, Brown teaches cutting the product, removing the core and placing into a tote in the field and subsequently processing (paragraph 0005 and 0011). Regarding claim 5, the whole head nature of the product is retained since Brown discloses that the core is removed from the head or stalk

(paragraph 0041). Thus, the head of the produce would still have its whole head nature. Regarding claim 7, Brown teaches removing the core, and thus another device would inherently have been used in order to remove the core.

Claims 66 and 71 differs from the prior art in specifically reciting wherein two rows of the de-cored product are placed within the tote. As discussed above, the prior art to Mitchell et al. already teaches two rows of produce being washed (figure 9B) but does not teach maintaining these rows in totes. The prior art to Brown and Hougham teaches maintaining the produce within totes while washing. Maintaining the produce in rows would also have been obvious for the reasons given with respect to claim 1. To therefore have two rows, side by side, would not have provided a patentable feature over the prior art. Regarding claims 67 and 72, the prior art already teaches washing fluid directed to two sides of the tote. For instance Brown '850 teaches spraying from the top and bottom, and Mitchell et al., teach spraying from the left and right sides. Claim 68 is rejected for the reasons given with respect to claim 19. Regarding claims 69 and 70, modified Mitchell et al. teach washing and drying the de-cored produce while being maintained within a tote and also immersing the tote, for the reasons given above with respect to claims 1 and 16. The claim 69 differs in reciting wherein the first side of the tote faces a direction of conveyance, while the de-cored product also faces the first side. In light of the rejection under 35 U.S.C. 112, second paragraph, it is noted that Brown '850 and '865 teach fluid flow from above and below the tote, and Mitchell et al. teach fluid flow from the left and right sides of the tote. However, Brown' 850 also teaches that the nozzles may be arranged in rows or any arrangement that adequately

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washes the trimmed produce. To therefore re-orient the produce so that the de-cored ends face a first side which is in the direction of conveyance would have been an obvious matter of design.

Claim 15 differs from the prior art in reciting wherein the product is placed in multiple rows on top of each other in the tote. Based on the size of the totes of Mitchell et al. (Figure 2A, 2B) it would have been obvious to the ordinarily skilled artisan to place multiple rows of the de-cored product on top of each other for the purpose of maximizing the efficiency of the washing and drying process. In any case, Mitchell et al. teach that it was known to wash multiple rows, as shown in figure 9B. Mitchell et al. also teach wherein the products are stacked in the totes to dry (Column 2, lines 10-12). The prior art to Brown and Hougham already provides motivation for washing while in the tote. To therefore stack multiple rows on top of each other in the tote, for washing, would have been obvious for the purpose of maximizing the efficiency of the washing and drying process.

Regarding instant claim 16, Brown '850 teaches that the washing may involve submerging the containers in liquid (paragraph 0043).

Regarding instant claim 18, Brown '850 and Brown et al. 865 teach the flow of cleaning fluid directed toward the ends of the product. The combined teachings of Mitchell et al., Brown ('850) and Brown et al. ('865), as discussed above teach washing de-cored produce in a tote and the flow of washing fluid directed toward the de-cored ends of the product. Regarding instant claim 19, Brown '850 teaches a conveyance device to carry the tote through the cleaning tank (paragraph 0042). Claim 22 differs

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from the prior art in specifically reciting the step of spin drying the product in the tote. Mitchell et al. teach spin drying the produce, which is already in the tote and Brown '850 teaches dumping the containers into a transport and also teaches shaking excess water (paragraph 0045 and 0046). To therefore use a spin dryer would have been obvious to the ordinarily skilled artisan, for the purpose of more efficiently removing the moisture from the washed produce. Claim 33 is rejected for the reasons give with respect to claim 1 regarding the de-coring, washing, immersing and transporting. The drying is taught by Mitchell et al. as discussed above with respect to claim 22. Regarding claim 34, Mitchell et al. teach packaging the washed, dried and de-cored product (column 3, lines 31-36). Regarding claim 35, Brown '850 teaches using water to wash the produce. Regarding claim 36, Mitchell et al. teach using a second conveyor for the purpose of securing the produce onto the belt (Figure 9B). Mitchell et al. teach using the two conveyor belts to prevent bobbing of the produce while submerged. Therefore, it would have been obvious to the ordinary skilled artisan to use a second conveyor for the purpose of securing the tote while washing the produce. Such a modification would have prevented bobbing of the tote. Claim 37 is rejected for the reasons give above in paragraph 9. Claims 38 and 39 are rejected for the reasons given with respect to claims 8-9. Claim 40 is rejected for the reasons given with respect to claims 1 and 16. Regarding claim 41, Brown '850 teaches a transport mechanism which carries the totes comprising the produce into a flow of washing fluid directed at the de-cored ends of the produce, as discussed above.

10. Claims 8-10, 12 are rejected over the references as applied to claims 1-3, 5, 7, 15-19, 22, 33-41 and 66-72, above and in further view of Hougham (US 5316778).

Claims 8-9 differ from the prior art in specifically reciting wherein the step of pre-washing the cut product prior to placing in the tote and further comprising the step of spray washing at least one end of the product before placement in the tote.

Hougham is cited for the reasons given above in paragraph 9 and the claim is similarly rejected for the reasons give above in paragraph 9.

Regarding claim 12, the whole head nature of the produce has been retained, as taught by Brown '850.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1, 2, 4, 5, 7-10,12, 15, 16-17, 18, 19,22, 33-41 and 66-72, above, and in further view of Herrera (US 20030217650).

Claim 6 differs from the combination of the prior art in specifically reciting wherein the device to cut out the core of the product is a stainless steel knife. Nevertheless, Mitchell et al. disclose wherein the core is removed or trimmed (Column 3, Lines 31-32). Herrera teaches a method for harvesting and coring produce such as lettuce (Paragraph 0004) using a cutting element comprised of steel or steel alloy (Paragraph 0079). Therefore, Hererra teaches that it has been well established in the art and thus would have been obvious to the ordinarily skilled artisan to use a cutting edge to remove the cores of the lettuce of Mitchell et al. Using a steel alloy cutting element as taught by Herrera would have provided consistency in the removal of the core from

each of the lettuce heads. Although Hererra does not explicitly teach stainless steel, it would have been obvious to one having ordinary skill in the art that steel alloys encompass stainless steel. Nevertheless, in cutting food products it would have been within the knowledge of the ordinarily skilled artisan and thus obvious to the ordinarily skilled artisan to use a stainless steel cutting edge since stainless steel cutting devices do not stain, corrode or rust, thus preventing contamination to the food product being cut.

12. Claim 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1, 2, 4, 5, 7-10,12, 15, 16-17, 18, 19,22, 33-41 and 66-72 , above and in further view of Terry (US 5711980).

Regarding instant claim 24, Mitchell et al. teaches using a temperature of between 33-40°F (Column 5, Lines 5-7) for the washing of the produce but is silent in teaching maintaining the temperature of between 33 and 38°F throughout the entire process. Terry teaches maintaining a "cool" temperature (Column 1, Lines 43-51) throughout the processing of the produce for the purpose of preserving the marketable life of the produce (Column 1, Lines 25-39). On column 2, lines 17-19 and lines 30-34, Terry teaches a constant temperature throughout processing of 35°F. Terry teaches that maintaining a lowered temperature through processing aides in extending the useful marketable life of produce therefore it would have been obvious, based on these teachings, to operate the processing equipment of modified Mitchell et al. at 35°F for the purpose of extending the useful marketable life of the produce.

Response to Arguments

13. Applicant's arguments filed February 21, 2008 have been fully considered but they are not persuasive. Regarding Mitchell, applicant states that the Mitchell reference does not place de-cored ends towards the center of the tote. This argument is moot in view of the amendments to the claims, and in further light of the necessitated new grounds for rejection which state that the arrangement would have been obvious based on the teachings of the secondary references. Regarding Garcia, it is noted that the Garcia reference teaches on column 4, line 67 to column 5, line 3, to de-core the lettuce. In any case, applicant's amendment of a row of the product has overcome the rejection. Regarding Hougham, it is noted that the independent claim does not indicate that the whole head nature of the product has been retained. In the case of Hougham, the core nevertheless, still has been removed from the produce. Additionally, it is noted that Hougham has been relied on as a secondary teaching of the concept of washing and drying de-cored produce within a tote. Applicant's arguments that the Office has failed to provide a specific citation to a reference which loads de-cored products into a tote with the de-cored edges facing against a side of the tote and directing the washing fluid through the de-cored end is not persuasive. It is noted that the Brown references teach this concept as does the Garcia reference. Nevertheless, these references do not anticipate the claim as a result of the newly added limitations of the produce arranged in a row.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **VIREN THAKUR** whose telephone number is (571)272-6694. The examiner can normally be reached on Monday through Friday from 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571)272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. T./
Examiner, Art Unit 1794

/Steve Weinstein/
Primary Examiner, Art Unit 1794

